

FILE C
Mathematics

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Item Information and Scoring Guide Reference Sheet

The following pages are designed to assist you in understanding how Maine Educational Assessment (MEA) mathematics items are scored. These pages contain the text for each released item accompanied by the following information.

Multiple-Choice Items

The boxes containing the multiple-choice items also contain the percent of students statewide who chose each answer option. The correct option is asterisked(*).

- **MC#:** the multiple-choice item position in the Class Analysis Report
One point may be earned for a multiple-choice item.
- **Key:** the letter of the correct answer for the multiple-choice item
- **Calculator:** indication of whether a calculator was an allowed tool in the session during which the item was administered
- **Cluster:** the cluster the item measured
- **Content Standard:** the content standard that the item measured
- **Grade Level Expectation (GLE):** the grade level expectation that the item measured

Short-Answer Items

- **SA#:** the short-answer item position in the Class Analysis Report
Up to two points may be earned for a short-answer item.
- **Calculator:** indication of whether a calculator was an allowed tool in the session during which the item was administered
- **Cluster:** the cluster the item measured
- **Content Standard:** the content standard that the item measured
- **Grade Level Expectation (GLE):** the grade level expectation that the item measured
- **Short-Answer Scoring Guide:** the description of each score point used to determine the score, including the percent of students statewide who received each score and the statewide average student score
- **Training Notes:** in-depth descriptions or particular information used to determine the score
- **Annotated Student Response:** sample student response for each score point with annotations that explain the reasoning behind the assigned score

Item Information and Scoring Guide Reference Sheet

Constructed-Response Items

- **CR#:** the constructed-response item position in the Class Analysis Report
Up to four points may be earned for a constructed-response item.
- **Calculator:** indication of whether a calculator was an allowed tool in the session during which the item was administered
- **Cluster:** the cluster the item measured
- **Content Standard:** the content standard that the item measured
- **Grade Level Expectation (GLE):** the grade level expectation that the item measured
- **Constructed-Response Scoring Guide:** the description of each score point used to determine the score, including the percent of students statewide who received each score and the statewide average student score
- **Training Notes:** in-depth descriptions or particular information used to determine the score
- **Annotated Student Response:** sample student response for each score point with annotations that explain the reasoning behind the assigned score

MEA 2005–2006

Mathematics Grade 7

The table below shows the entire MEA mathematics test design. Half of the common items are released and can be found in this document. Item information for all item types, scoring information (average scores, guides, and training notes) for all short-answer and constructed-response items, and annotated student responses follow.

2005–2006 MEA MATHEMATICS TEST DESIGN

CONTENT AREA	COMMON			EMBEDDED FIELD TEST			TOTAL ITEMS PER STUDENT			BASE TESTING TIME	POINTS
	MC	CR	SA	MC	CR	SA	MC	CR	SA		
MATHEMATICS	32	3	6	8	2	2	40	5	8	105 MIN.	56

Each item on the MEA measures a grade level expectation based on Maine’s *Learning Results*. Score points for items are accumulated and reported in clusters. Each content standard is included in a cluster as indicated below.

Mathematics Clusters

1. Numbers and Operations

Numbers and Number Sense
Computation
Discrete Mathematics

2. Shape and Size

Geometry
Measurement

3. Mathematical Decision Making

Data Analysis and Statistics
Probability
Mathematical Reasoning

4. Patterns

Patterns, Relations, and Functions
Algebra Concepts
Mathematical Communication

1. The monthly bill for Josie's cell phone is \$45.00 plus \$0.15 for each minute used over 200 minutes. One month, she used her phone for 500 minutes. What was her bill that month?
- | | |
|------|------------|
| 7% | A. \$45.00 |
| 11% | B. \$45.45 |
| 18% | C. \$49.50 |
| *64% | D. \$90.00 |

MC#: 1

Key: D

Calculator: Not Allowed

Cluster: Numbers and Operations

Content Standard B: Computation—Students will understand and demonstrate computation skills (no calculator use for straight computation; numbers used in this section should match those listed for Standard A).

GLE: B2.7—Students will be able to create, solve, and justify the solution for multi-step, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents.

2. A gross is 12^2 . How many pencils are there in a gross of pencils?

32%	A.	24
4%	B.	122
*62%	C.	144
2%	D.	1200

MC#: 2

Key: C

Calculator: Not Allowed

Cluster: Numbers and Operations

Content Standard A: Number and Number Sense—Students will understand and demonstrate a sense of what numbers mean and how they are used.

GLE: A1.7—Students will be able to compare, order, use, and represent fractions, decimals, and percents and convert among different numeral forms (limited to terminating decimals for decimal to fraction conversion) and apply concepts of integers, absolute value and positive exponents.

3. The astronomy club spent 75% of the money earned at a bake sale on a new telescope. The telescope cost \$300. How much money did the astronomy club earn at the bake sale? Show your work or explain how you found your answer.

SA#: 3

Calculator: Not Allowed

Cluster: Numbers and Operations

Content Standard B: Computation—Students will understand and demonstrate computation skills (no calculator use for straight computation; numbers used in this section should match those listed for Standard A).

GLE: B2.7—Students will be able to create, solve, and justify the solution for multi-step, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents.

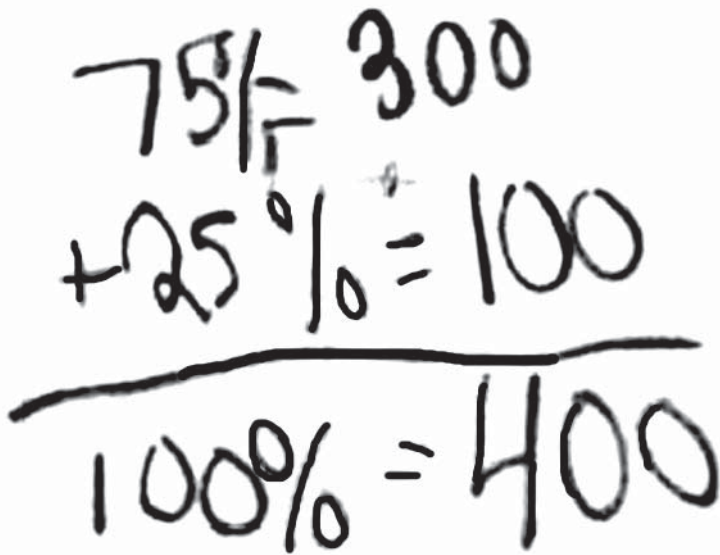
SHORT-ANSWER SCORING GUIDE

Percentage of Statewide Student Scores	Score	Description
41%	2	Student correctly answered, \$400 , with work shown or explanation given.
8%	1	Student gives correct answer, but no work or explanation is provided OR Student's answer is incorrect, but work or explanation shows correct strategy in solving the problem. There is a computation error.
47%	0	Response is incorrect or contains some work that is irrelevant to the skills or concept being measured.
4%	Blank	No response.
.9	Statewide average student score.	

Sample Response

$$\frac{75}{100} = \frac{300}{x} \rightarrow x = 400$$

3.



Handwritten work showing a two-step calculation:

$$\begin{array}{r} 75\% = 300 \\ + 25\% = 100 \\ \hline 100\% = 400 \end{array}$$

Summary annotation statement:

This response contains the correct answer of \$400 with work shown. Note: there was no penalty for not writing the dollar sign.

Sample 1-Point Response with Annotations for Short-Answer Item 3

3.

$$\frac{300}{1} = \frac{75\%}{100}$$

$$\begin{array}{r} 75 \overline{) 30000} \\ \underline{300} \\ 000 \end{array}$$

The student has circled the number 4000 above the division line, indicating a calculation error.

$$\begin{array}{r} 40 \\ \underline{3000} \\ 000 \end{array}$$

Summary annotation statement:

The student provides the correct strategy but makes a computation error.

3.

$$\begin{array}{r}
 300 \\
 \times 0.75 \\
 \hline
 1500 \\
 .21000 \\
 00000 \\
 \hline
 .22500
 \end{array}
 \qquad
 \begin{array}{r}
 300 \\
 + 225 \\
 \hline
 \$525
 \end{array}$$

525 \$ (dollars) were made
at the bakesale.

Summary annotation statement:

This response illustrates an incorrect answer and strategy.

4. a. On the grid in your answer booklet,
- locate and label the points P (4,4), Q (2,4), and R (2,-2),
 - draw segments \overline{PQ} and \overline{QR} , and
 - draw and label a point S and segments \overline{RS} and \overline{PS} so that PQRS is a rectangle.
- What are the coordinates of point S?
- b. On the same grid in your answer booklet,
- locate and label the points J (-2,4) and K (-4,1),
 - draw segment \overline{JK} , and
 - draw and label two new points L and M so that JKLM is a parallelogram that is not a rectangle.
- What are the coordinates of points L and M?

CR#: 4

Calculator: Not Allowed

Cluster: Shape and Size

Content Standard E: Geometry - Students will understand and apply concepts from geometry.

GLE: E3.7 – Students will be able to use a coordinate system to define and locate position.

CONSTRUCTED-RESPONSE SCORING GUIDE

Percentage of Statewide Student Scores	Score	Description
16%	4	4 points
15%	3	3 points
10%	2	2 points
10%	1	1 point
41%	0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
8%	Blank	No response.
1.38	Statewide average student score.	

Training Notes for Constructed-Response Item 4

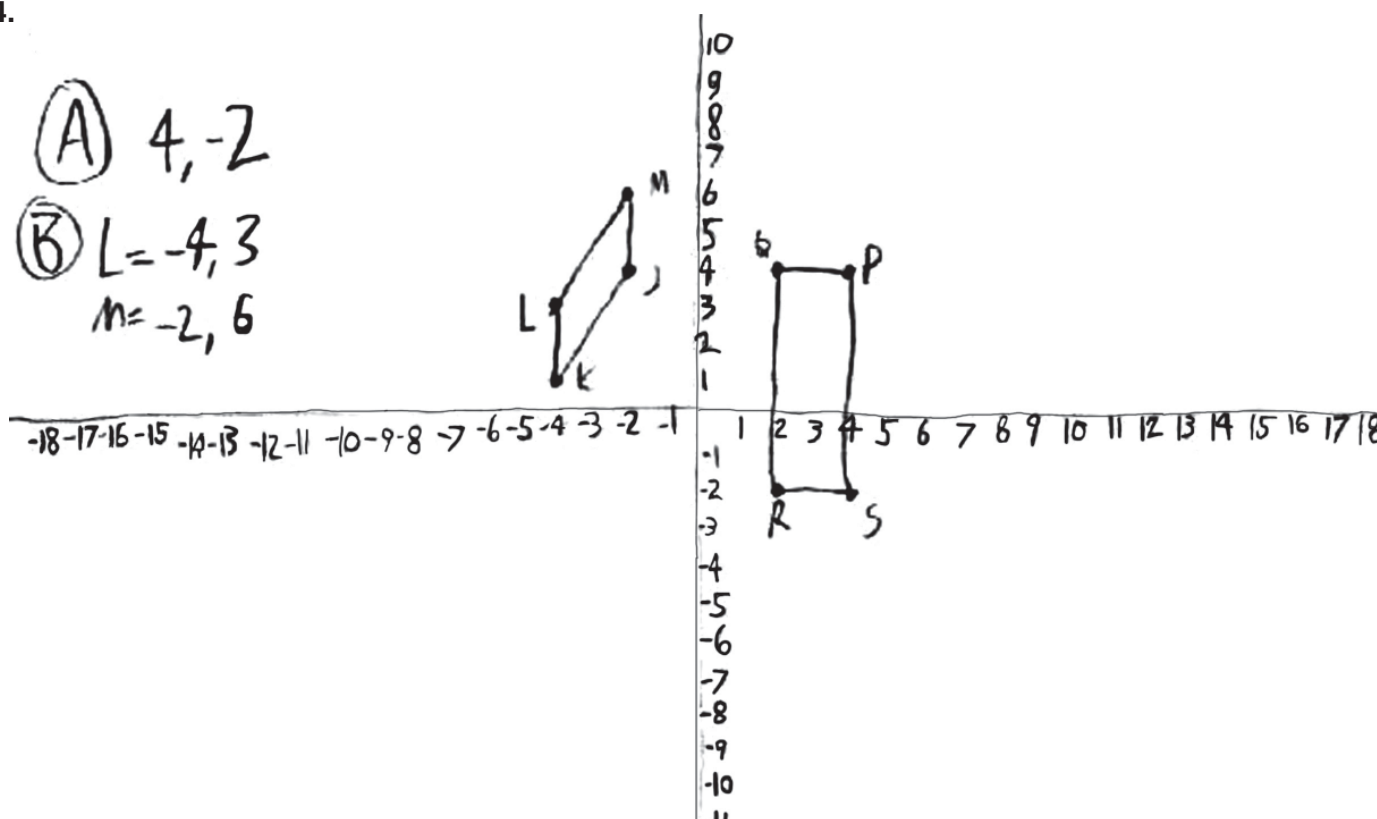
- Part a: 2 points for correctly graphing and labeling the 3 points; drawing the line segments, correctly locating on the graph, labeling point S , and giving the coordinates of point S (4, -2). Do not deduct for missing parentheses.
OR
- 1 point for correctly graphing all 3 points
or
for giving the coordinates of the student-graphed point S .
- Part b: 2 points for correctly graphing and labeling the 2 points; drawing the line segment, correctly locating on the graph, labeling points L and M , and giving the coordinates of points L and M that make $JKLM$ a non-rectangular parallelogram.
OR
- 1 point for correctly locating two points that make $JKLM$ any type of parallelogram.
or
for giving the coordinates of the student-graphed points L and M .

Note: Student Answer Booklets contained a grid which is not visible in these student work examples.

4.

(A) 4, -2

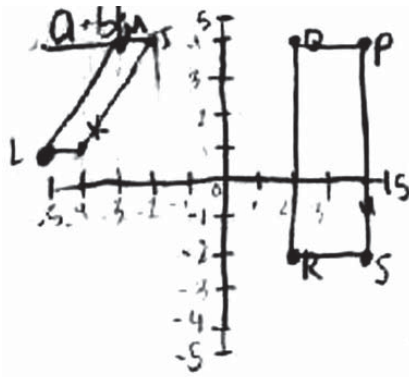
(B) L = -4, 3
M = -2, 6



Summary annotation statement:

The student earns 2 points in part a for correctly graphing and labeling the four points, drawing the line segments, and giving the coordinates for point S. In part b the student earns 2 more points for correct graphing and labeling, with line segment JK, to create the non-rectangular parallelogram JKLM. Four total points earns a score point 4.

4.



The coordinates of point S are
(4, -2)

The coordinates of points L
and M are-

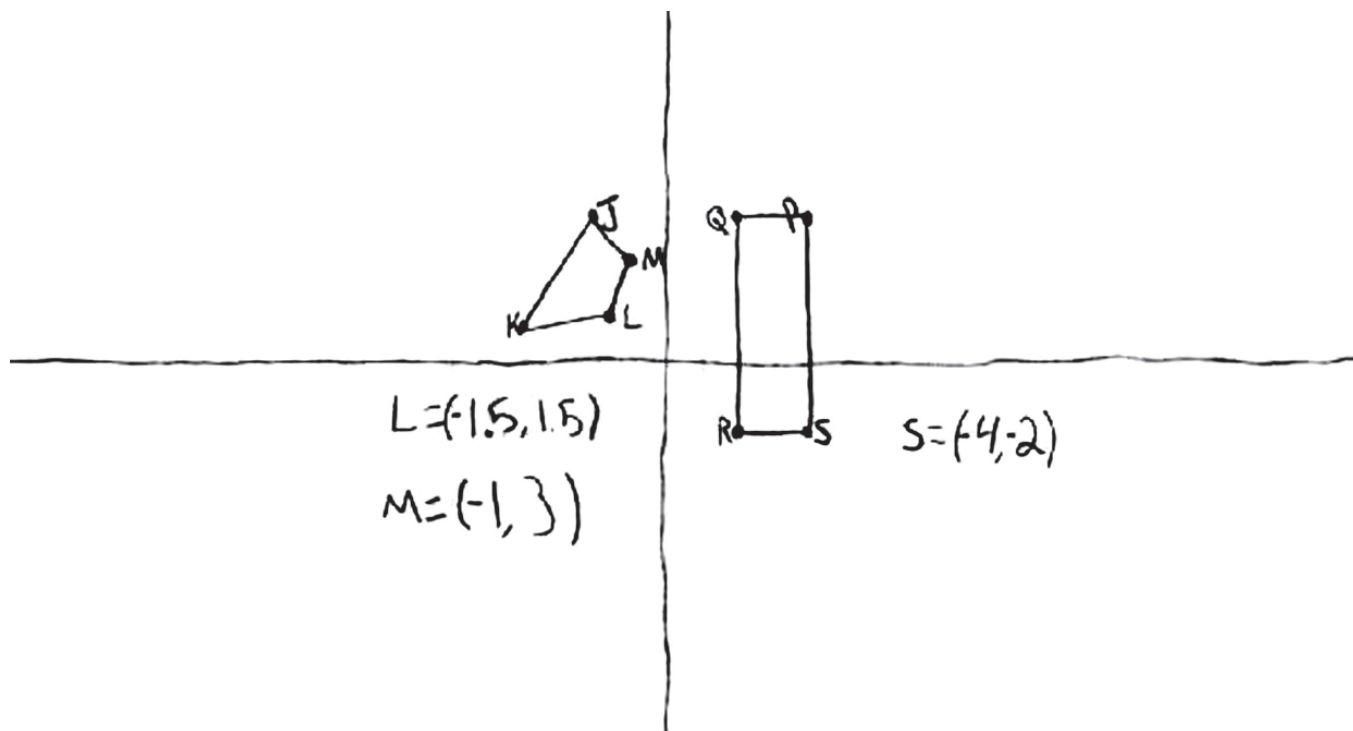
L: (-5, 1)

M: (-3, 4)

Summary annotation statement:

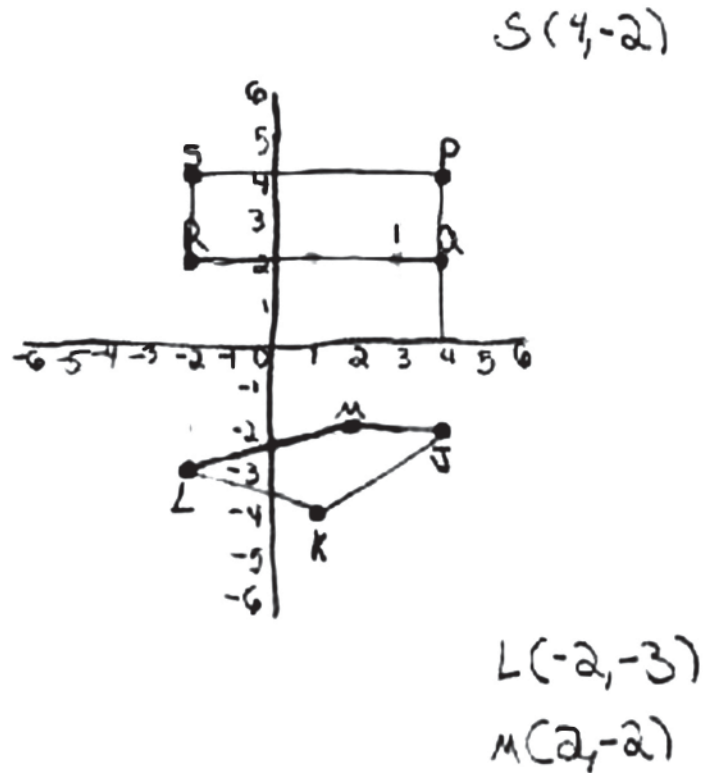
This response earns 2 points in part a for correctly graphing and labeling the four points, drawing the line segments, and providing the coordinates for point S. The student earns 1 point in part b for correctly locating two points that make JKLM a parallelogram. The coordinates for point L are incorrect and should be (-5, 1). A total of 3 points earns a score point 3 for this item.

4.

**Summary annotation statement:**

In part a the first three points are graphed and labeled correctly (with line segments), but the coordinates for point S are incorrect, earning 1 point. The points are correct in part b, but the figure is NOT a parallelogram. Again, the student earns 1 point on this part. A total of 2 points is a score point 2.

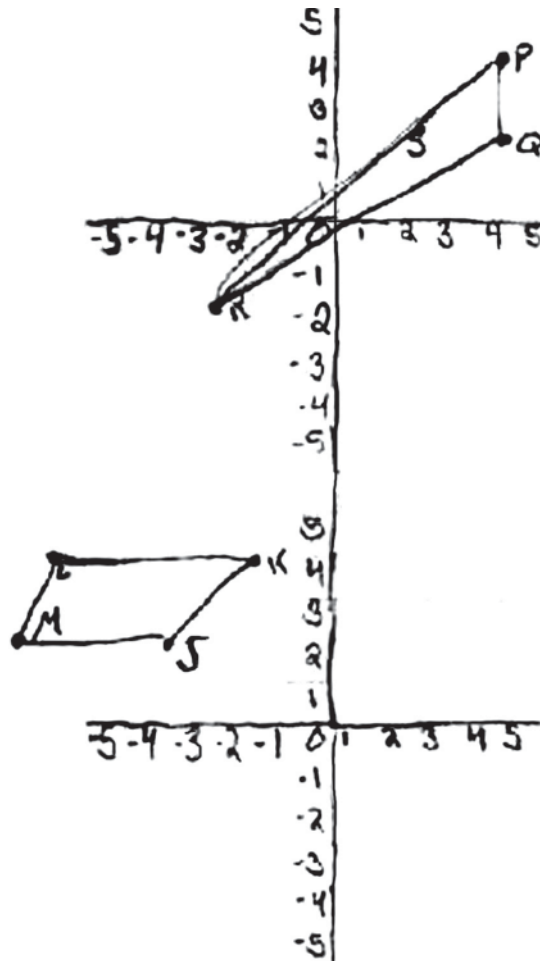
4.



Summary annotation statement:

The student earns no points in part a because all facets of the rectangle are incorrect. Except for giving the correct coordinates of the graphed points for L and M, the response in part b is incorrect. The student earns 1 total point for the coordinates in part b, which is a score point 1.

4.



Summary annotation statement:

This response contains incorrect answers for both parts a and b, earning no total points.

5. The following table shows the noise level at various distances from an airport when an airplane takes off.

Noise Level of an Airplane at Take-off

Miles (M) from Airport	Noise Level (D) (in Decibels)
1	75
2	64
3	53
4	42

Which equation shows the relationship between D and M in this table?

- *41% A. $D = 86 - 11M$
16% B. $D = 11M - 86$
25% C. $D = 76 - M$
16% D. $D = M - 76$

MC#: 5

Key: A

Calculator: Allowed

Cluster: Patterns

Content Standard G: Patterns, Relations, and Functions—Students will understand that mathematics is the science of patterns, relationships, and functions.

GLE: G3.7—Students will be able to solve problems involving linear patterns in the form of tables, graphs, words, rules or equations using rational numbers (including signed values).

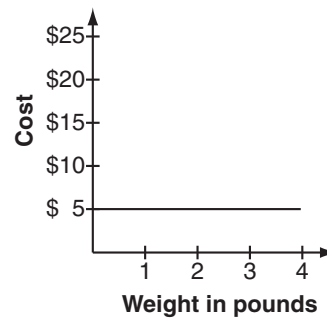
6. The chart below shows the cost of different weights of chocolate fudge at the Sweet Shop.

Weight	Cost
1 pound	\$ 5
2 pounds	\$10
3 pounds	\$15
4 pounds	\$20

Which graph best shows the relationship between weight and cost shown in the chart?

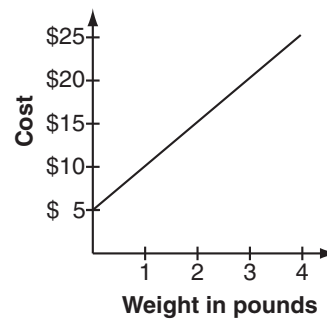
4%

A.



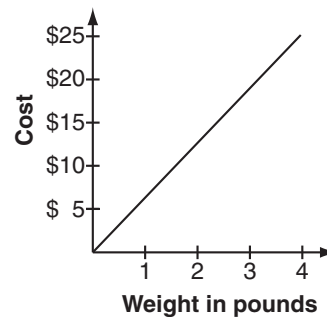
16%

B.



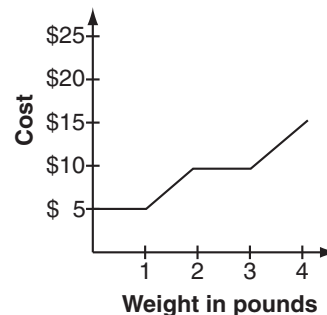
*60%

C.



20%

D.



MC#: 6

Key: C

Calculator: Allowed

Cluster: Patterns

Content Standard G: Patterns, Relations, and Functions—Students will understand that mathematics is the science of patterns, relationships, and functions.

GLE: G3.7—Students will be able to solve problems involving linear patterns in the form of tables, graphs, words, rules or equations using rational numbers (including signed values).

7. What is the value of this expression?

$$3 \times 6 - 4 + 8 \div 2$$

- | | |
|------|-------|
| 2% | A. 7 |
| 8% | B. 10 |
| 43% | C. 11 |
| *46% | D. 18 |

MC#: 7

Key: D

Calculator: Allowed

Cluster: Numbers and Operations

Content Standard B: Computation—Students will understand and demonstrate computation skills (no calculator use for straight computation; numbers used in this section should match those listed for Standard A).

GLE: B1.7—Students will be able to compute and model all four operations with whole numbers, fractions (including mixed numerals), decimals, and percents applying order of operations and do straight computation with these numbers and operations.

8. Angie is making a decorative wreath by winding green ivy around a circular frame. The directions say that for every inch of circumference, 8 inches of ivy will be needed. If Angie's wreath has a diameter of 20 inches, what is the least amount of ivy Angie will need to complete the wreath?

41%	A. 252 inches
*41%	B. 503 inches
13%	C. 1006 inches
4%	D. 2516 inches

MC#: 8

Key: B

Calculator: Allowed

Cluster: Shape and Size

Content Standard F: Measurement—Students will understand and demonstrate measurement skills.

GLE: F3.7—Students will be able to be given formulas from which to choose, find areas and perimeters of 2-D shapes (includes circles), and volumes of rectangular solids with rational numbers with correct units.

9. Members of the band are selling candy bars to raise money. The director uses this equation to calculate the amount of profit, p , made from selling n candy bars.

$$p = 1.50n - 500$$

How many candy bars must be sold to make a profit of \$700?

- | | |
|------|--------|
| 8% | A. 134 |
| 33% | B. 300 |
| *48% | C. 800 |
| 9% | D. 967 |

MC#: 9

Key: C

Calculator: Allowed

Cluster: Patterns

Content Standard H: Algebra Concepts - Students will understand and apply algebraic concepts.

GLE: H6.7 – Students will be able to solve two-step equations using integers and positive rational numbers.

10. Maurice is roasting a turkey for dinner. The chart below is printed on the turkey package.

Weight of Turkey	Time to Cook
10 pounds	2 hours 30 minutes
12 pounds	3 hours
14 pounds	3 hours 30 minutes
16 pounds	4 hours

How long will it take Maurice to roast a 25-pound turkey?

- 6% A. 5 hours 15 minutes
8% B. 5 hours 30 minutes
*65% C. 6 hours 15 minutes
21% D. 6 hours 30 minutes

MC#: 10

Key: C

Calculator: Allowed

Cluster: Numbers and Operations

Content Standard A: Number and Number Sense—Students will understand and demonstrate a sense of what numbers mean and how they are used.

GLE: A3.7—Students will be able to apply concepts of ratios in practical or other mathematical situations.

11. Which property is true for all squares, but is **not** true for all rhombuses?

- | | |
|------|---------------------------------|
| *34% | A. All angles are equal. |
| 30% | B. All sides are equal. |
| 22% | C. Opposite sides are parallel. |
| 13% | D. Opposite sides are equal. |

MC#: 11

Key: A

Calculator: Allowed

Cluster: Shape and Size

Content Standard E: Geometry—Students will understand and apply concepts from geometry.

GLE: E1.7—Students will be able to use properties/attributes limited to number of vertices, number of edges, number of faces, shapes of faces, and types of angles to identify and distinguish among 3-dimensional shapes.

12. In science class, Cyan's model boat held 2817 grams of marbles before it sank. How many kilograms of marbles did Cyan's boat hold?

- | | |
|------|--------------|
| 22% | A. 0.2817 kg |
| *39% | B. 2.817 kg |
| 22% | C. 28.17 kg |
| 16% | D. 281.7 kg |

MC#: 12

Key: B

Calculator: Allowed

Cluster: Shape and Size

Content Standard F: Measurement—Students will understand and demonstrate measurement skills.

GLE: F1.7—Students will be able to perform conversions between pairs within the following groups: inches, feet, yards, and miles; millimeters, centimeters, meters, and kilometers; cups, pints, quarts, and gallons; milliliters and liters; ounces, pounds and tons; grams and kilograms; seconds, minutes, hours, days, weeks, months, and years.

13. Kylee tested 12 batteries and found that 2 were defective. What percent of the batteries were defective?

- 28% A. 2%
- *45% B. $16\frac{2}{3}\%$
- 22% C. 20%
- 4% D. $33\frac{1}{3}\%$

MC#: 13

Key: B

Calculator: Allowed

Cluster: Numbers and Operations

Content Standard A: Number and Number Sense—Students will understand and demonstrate a sense of what numbers mean and how they are used.

GLE: A3.7—Students will be able to apply concepts of ratios in practical or other mathematical situations.

14. A cookie recipe uses 3 cups of flour to make 4 dozen cookies. Colin wants to make 7 dozen cookies. What proportion could he solve to determine how much flour he needs?

18% A. $\frac{3}{4} = \frac{7}{?}$

13% B. $\frac{3}{7} = \frac{4}{?}$

11% C. $\frac{4}{3} = \frac{?}{7}$

*57% D. $\frac{3}{4} = \frac{?}{7}$

MC#: 14

Key: D

Calculator: Allowed

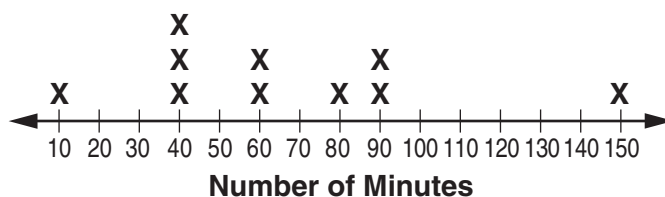
Cluster: Numbers and Operations

Content Standard A: Number and Number Sense—Students will understand and demonstrate a sense of what numbers mean and how they are used.

GLE: A3.7—Students will be able to apply concepts of ratios in practical or other mathematical situations.

15. Mr. Chavez asked his students about how long they use the Internet each day. The results of his survey are shown below.

Average Time Spent Daily on Internet



Based on these data, which statement is true?

- | | |
|------|--------------------------|
| *61% | A. The mode is 40. |
| 16% | B. The mean is about 40. |
| 7% | C. The range is 50. |
| 16% | D. The median is 80. |

MC#: 15

Key: A

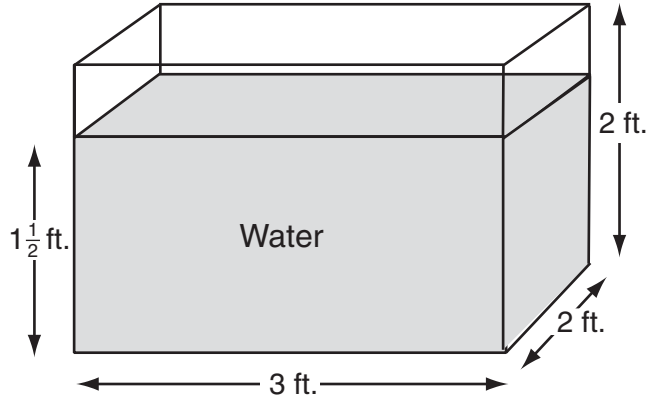
Calculator: Allowed

Cluster: Mathematical Decision Making

Content Standard C: Data Analysis and Statistics—Students will understand and apply concepts of data analysis.

GLE: C1.7—Students will be able to organize data and analyze patterns and trends in data using modes, medians, means and ranges for sets of data (emphasis on comparing sets begins). Data displays include lists, tables, frequency distributions, line plots, bar graphs or stem and leaf plots.

16. Jerry poured water to a height of $1\frac{1}{2}$ feet into a new aquarium with dimensions shown below.



One cubic foot of water weighs approximately 62 pounds. What is the weight of the water that Jerry put in the aquarium?

- | | |
|------|---------------|
| 21% | A. 403 pounds |
| 25% | B. 465 pounds |
| *42% | C. 558 pounds |
| 12% | D. 744 pounds |

MC#: 16

Key: C

Calculator: Allowed

Cluster: Shape and Size

Content Standard F: Measurement—Students will understand and demonstrate measurement skills.

GLE: F3.7—Students will be able to be given formulas from which to choose, find areas and perimeters of 2-D shapes (includes circles), and volumes of rectangular solids with rational numbers with correct units.

17. Scientists use this formula to convert Fahrenheit, F , to Celsius, C .

$$C = \frac{5}{9}(F - 32)$$

To the nearest degree, how many degrees Celsius is 132°F ?

- | | |
|------|--------------------------|
| *42% | A. 56°C |
| 33% | B. 91°C |
| 17% | C. 180°C |
| 6% | D. 295°C |

MC#: 17

Key: A

Calculator: Allowed

Cluster: Patterns

Content Standard H: Algebra Concepts—Students will understand and apply algebraic concepts.

GLE: H6.7—Students will be able to solve two-step equations using integers and positive rational numbers.

18. An item at a store is marked 45% off. What percent of the original price will the item cost?

- | | |
|------|--|
| 3% | A. 0.55% |
| 7% | B. 45% |
| *46% | C. 55% |
| 42% | D. It depends on the original price of the item. |

MC#: 18

Key: C

Calculator: Allowed

Cluster: Numbers and Operations

Content Standard A: Number and Number Sense—Students will understand and demonstrate a sense of what numbers mean and how they are used.

GLE: A1.7—Students will be able to compare, order, use, and represent fractions, decimals, and percents and convert among different numeral forms (limited to terminating decimals for decimal to fraction conversion) and apply concepts of integers, absolute value and positive exponents.

19. Solve and show your work.

$$\frac{10x}{7} = 5$$

SA#: 19

Calculator: Allowed

Cluster: Patterns

Content Standard H: Algebra Concepts—Students will understand and apply algebraic concepts.

GLE: H6.7—Students will be able to solve two-step equations using integers and positive rational numbers.

SHORT-ANSWER SCORING GUIDE

Percentage of Statewide Student Scores	Score	Description
22%	2	Response has correct answer, 3.5 or $3\frac{1}{2}$, or equivalent, and shows work.
9%	1	Response has correct answer with no work shown. OR Response shows some correct strategy in solving the equation by completing at least one step of the solution correctly.
57%	0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
12%	Blank	No response.
.52	Statewide average student score.	

Training Notes for Short-Answer Item 19

Solution steps will vary. One possible solution follows.

$$\frac{10x}{7} = 5$$

$$10x = 35$$

$$x = 3.5$$

Sample 2-Point Response with Annotations for Short-Answer Item 19

19.

$$\frac{10x}{7} = 5$$
$$\frac{10x}{7} = 5.7$$
$$\frac{10x}{10} = \frac{35}{10}$$
$$x = 3.5$$

Summary annotation statement:

This response provides the correct answer with work shown.

Sample 1-Point Response with Annotations for Short-Answer Item 19

19.

$$\frac{10x}{7} = 5$$
$$\frac{10x}{7} \cdot 7.7 = 5 \cdot 7$$
$$\frac{10x}{10} = \frac{35}{10}$$
$$x = 3$$

Summary annotation statement:

In this response the correct strategy is shown; however, the final answer is incorrect due to a computation error. Note: The student wrote “.7” one extra time in the second line, but corrects his or her mistake in the next line; the strategy is still correct.

19.

$$\frac{10x}{7} = 5 \quad 10 \times 7 = 70$$
$$70 \div 5 = 14 \quad \text{I think}$$
$$14 \text{ is the answer}$$

Summary annotation statement:

This student applied an incorrect strategy and reached an incorrect answer.

20. Billy offers ice-cream sundaes at his roadside stand. The choices are shown in the table below.

Sundaes

Ice Cream	Sauce	Toppings
Vanilla	Butterscotch	Nut
Chocolate	Fudge	Whipped Cream
Strawberry		

- A sundae consists of one ice cream, one sauce, and one topping. How many different sundaes are possible with these choices? Make an organized list or tree diagram, or explain how you found your answer.
- Brian randomly selects a sundae. What is the probability that it contains chocolate ice cream? Show your work or explain how you found your answer.

CR#: 20

Calculator: Not Allowed

Cluster: Mathematical Decision Making

Content Standard D: Probability—Students will understand and apply concepts of probability.

GLE: D4.7—Students will be able to apply the idea of permutation in a problem situation with 6 elements or fewer (e.g., how many ways can the four letters in the word “math” be arranged?).

CONSTRUCTED-RESPONSE SCORING GUIDE

Percentage of Statewide Student Scores	Score	Description
35%	4	4 points
10%	3	3 points
22%	2	2 points
13%	1	1 point OR Student shows minimal understanding of probability or making tree diagrams.
17%	0	Response is incorrect or contains some correct work that is irrelevant to the skill or concept being measured.
3%	Blank	No response.
2.25	Statewide average student score.	

Training Notes for Constructed-Response Item 20

- Part a: 2 points for the correct answer, 12, and work or tree diagram to show appropriate strategy.
OR
1 point for correct strategy shown. Student shows the numbers to be multiplied or gives a tree diagram or organized list that has at least 8 correct choices (there may be some duplicates, but it is clear the student knew how to do the list).
- Part b: 2 points for the correct answer, $\frac{4}{12}$ or $\frac{1}{3}$, or the equivalent (or correct answer based on incorrect a) and work or explanation to show appropriate strategy was used.
OR
1 point for the correct answer (or correct answer based on incorrect a), no work shown and no explanation given.
or
for correct strategy shown or explained.

Sample Response

Part a: Students might solve using multiplication, $3 \times 2 \times 2 = 12$, or students might make a tree diagram or organized list.

VBN	CBN	SBN
VBW	CBW	SBW
VFN	CFN	SFN
VFW	CFW	SFW

Part b: Student might just show $\frac{4}{12}$ or $\frac{1}{3}$ for work or student might explain 4 out of the 12 choices contain chocolate ice cream.

Sample 4-Point Response with Annotations for Constructed-Response Item 20

20.

A. VBN
VBC
VFN
VFC
CBN
CBW
CFN
CFW
SBN
SBC
SFN
SFC

⑪

12 possible
combo's

B. $\frac{4}{12} = \frac{2}{6} = \frac{1}{3}$

correct
possibilities

Summary annotation statement:

The student earns 2 points in part a for showing correct work (the list) to show an appropriate strategy and reaching the correct answer. In part b the student earns another 2 points for showing an appropriate strategy and finding the correct answer. According to the scoring guide, 4 total points is a score point 4.

Sample 3-Point Response with Annotations for Constructed-Response Item 20

20.

a. ICECREAMS sauces TOPPINGS Choices
3 X 2 X 2 = 12

b. $\frac{1}{3}$

Summary annotation statement:

This student shows a correct strategy and answer in part a, earning 2 points. In part b the student earns 1 point by providing the correct answer with no work or explanation given. The scoring guide indicates 3 total points is a score point 3.

20.

Vanilla Butterscotch Nut
 A Vanilla Fudge Whipped Cream
 Chocolate Butterscotch Nut
 Chocolate Fudge Whipped Cream
 Strawberry Butterscotch Nut
 Strawberry Fudge Whipped Cream

6 choices

B. $\frac{2}{6}$ 6 choices of sundes, 2 of
 each flavor. So it is $\frac{2}{6}$

Summary annotation statement:

The student does not earn any points in part a because he or she gives an incorrect answer and the list does not show evidence of understanding of the requested task by listing fewer than 8 correct choices. In part b the student earns 2 points by providing the correct answer, with explanation, based on the answer to part a. According to the scoring guide 2 total points is a score point 2.

20.

Vanilla Butterscotch Nut
 Vanilla Fudge Whipped Cream
 Chocolate Fudge Whipped Cream
 Chocolate Fudge Nut
 Strawberry Fudge and Whipped Cream
 Strawberry Butterscotch Nut
 Strawberry Fudge Nut
 Strawberry Butterscotch and Whipped Cream
 it might contain chocolate because it's in the middle of the chart.

Summary annotation statement:

This response only earns 1 total point. In part a the student provides an organized list with at least eight correct choices (11 correct choices) but does not indicate a final answer of 12. The student earns no points for part b because there is an incorrect answer and strategy. One total point earns a score point of 1.

20.

a. 2 Because all the others have topping and sauce next to them and strawberry does not.

b. NO Because it is a 75 percent chance that it was chokolet.

Summary annotation statement:

The student earns no points for his or her response. The answer and strategy are incorrect in both parts a and b.